#7

SEQUENCE LISTING

<110> Glass, David

Bodine, Sue

<120> NOVEL NUCLEIC ACID AND POLYPEPTIDE MOLECULES

<130> REG 753B

<140> 10/061,043

<141> 2002-01-30

<150> 60/338,742

<151> 2001-10-22

<150> 60/311,697

<151> 2001-08-10

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<170> PatentIn version 3.0

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Glu

<210> 4

<211> 29

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<213> mouse

<400> 4
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<213> mouse

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<210> 6

<211> 39

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<400> 6

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Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu
20 25 30

Ser Glu Asp Arg Leu Leu Trp
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<213> Homo sapiens

<400> 7

Leu Pro Glu Asp Val Leu Phe His Ile Leu Lys Trp Leu Ser Val Glu
1 5 10 15

Asp Ile Leu Ala Val Arg Ala Val His Ser Gln Leu Lys Asp Leu Val
20 25 30

Asp Asn His Ala Ser Val Trp
35

<210> 8

<211> 39

<212> PRT

<213> Homo sapiens

<400> 8

Leu Pro Glu Pro Leu Leu Leu Arg Val Leu Ala Ala Leu Pro Ala Ala
1 5 10 15

Glu Leu Val Gln Ala Cys Arg Leu Val Cys Leu Arg Trp Lys Glu Leu
20 25 30

Val Asp Gly Ala Pro Leu Trp
35

<210> 9

<211> 42

<212> PRT

<213> Homo sapiens

<400> 9

Leu Pro Gly Glu Val Leu Glu Tyr Ile Leu Cys Cys Gly Leu Thr Ser
1 5 10 15

Ala Ala Asp Ile Gly Arg Val Ser Ser Thr Cys Arg Arg Leu Arg Lys
20 25 30

Leu Cys Gln Ser Ser Gly Lys Val Trp Lys
35 40

<210> 10

<211> 39

<212> PRT

<213> Homo sapiens

<400> 10

Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr Arg Phe Ser Asp Gly
1 5 10 15

Trp Asp Ile Ile Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu
20 25 30

Ser Glu Asp Arg Gln Leu Trp
35

<210> 11

<211> 37

<212> PRT

<213> Homo sapiens

<400> 11

Leu Pro Tyr Glu Leu Ala Ile Asn Ile Phe Gln Tyr Leu Asp Arg Lys
1 5 10 15

Glu Leu Gly Arg Cys Ala Gln Val Cys Thr Trp Lys Val Ile Ala Glu
20 25 30

Asp Glu Val Leu Trp
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<210> 12

<211> 38

<212> PRT

<213> Homo sapiens

<400> 12

Leu Pro Thr Asp Pro Leu Leu Leu Ile Leu Ser Phe Leu Asp Tyr Arg
1 5 10 15

Asp Leu Ile Asn Cys Cys Tyr Val Ser Arg Arg Leu Ser Gln Leu Ser
20 25 30

Ser His Asp Pro Leu Trp
35

<210> 13

<211> 37

<212> PRT

<213> Homo sapiens

<400> 13

Leu Pro Lys Glu Leu Ala Leu Tyr Val Leu Ser Phe Leu Glu Pro Lys
1 5 10 15

Asp Leu Leu Gln Ala Ala Gln Thr Cys Arg Trp Arg Ile Leu Ala Glu
20 25 30

Asp Asn Leu Leu Trp
35

<210> 14

<211> 36

<212> PRT

<213> Homo sapiens

<400> 14

Leu Pro Ile Asp Val Gln Leu Tyr Ile Leu Ser Pro Leu Ser Pro His
1 5 10 15

Asp Leu Cys Gln Leu Gly Ser Thr Asn His Tyr Trp Asn Glu Thr Val
20 25 30

Arg Asp Pro Ile
35

<210> 15

<211> 39

<212> PRT

<213> Homo sapiens

<400> 15

Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Ile His Ile Pro Ala Arg
1 5 10 15

Gln Leu Leu Leu Arg Cys Arg Pro Val Cys Ser Leu Trp Arg Asp Leu
20 25 30

Ile Asp Leu Val Thr Leu Trp
35

<210> 16

<211> 360

<212> PRT

<213> mouse

<220>

<221> misc_feature

<222> (353)..(358)

<223> Xaa = any amino acid

<400> 16

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1 5 10 15

Lys Thr Glu Asp Gly Trp Lys Arg Cys Asp Pro Cys Ser His Glu Leu
20 25 30

Arg Ser Glu Asp Ser Gln Tyr Thr Ile Asn His Ser Ile Ile Leu Asn
35 40 45

Ser Gly Glu Glu Glu Ile Phe Asn Asn Glu Cys Glu Tyr Ala Ala Lys
50 55 60

Lys Arg Lys Lys Glu His Phe Gly Asn Asp Thr Ala Ala His Ser Phe
65 70 75 80

Tyr Arg Glu Lys Trp Ile Tyr Val His Lys Glu Ser Thr Lys Glu Arg
85 90 95

His Gly Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser
100 105 110

Ser Ala Leu Gln Asp Ile Arg Arg Phe Thr Tyr Val Val Lys Leu Leu
115 120 125

Gln Leu Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln
130 135 140

Lys Asn Tyr Phe Asn Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp
145 150 155 160

Asp His Gln Asn Pro Arg Leu Leu Lys Gly Leu Leu Gln Asp Leu Ser
165 170 175

Ser Thr Leu Gly Ile Leu Val Arg Gly Val Gly Lys Ser Val Leu Val
180 185 190

Gly Asn Ile Asn Ile Trp Thr Cys Arg Leu Glu Thr Val Leu Ser Trp
195 200 205

Gln Gln Gln Leu Gln Asn Leu Gln Val Thr Lys Gln Val Asn Thr Gly
210 215 220

Leu Thr Leu Ser Asp Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr
225 230 235 240

Arg Phe Ser Asp Gly Trp Asp Leu Val Thr Leu Gly Gln Val Thr Pro
245 250 255

Thr Leu Tyr Met Leu Ser Glu Asp Arg Arg Leu Trp Lys Arg Leu Cys
260 265 270

Gln Tyr His Phe Ala Glu Gln Gln Phe Cys Arg His Leu Ile Leu Ser
275 280 285

Glu Lys Gly His Leu Glu Trp Lys Leu Met Tyr Phe Thr Leu Gln Lys
290 295 300

Tyr Tyr Pro Thr Lys Glu Gln Tyr Gly Asp Thr Leu His Phe Cys Arg
305 310 315 320

His Cys Ser Ile Leu Phe Trp Lys Asp Ser Gly His Pro Cys Thr Arg
325 330 335

Ala Asp Pro Asp Ser Cys Phe Thr Pro Val Ser Pro Glu His Glu Ile
340 345 350

Xaa Leu Phe Lys Phe Xaa Trp Cys
355 360

<210> 17

<211> 272

<212> PRT

<213> Homo sapiens

<400> 17

Leu Ile Leu Thr Ser Val Leu Leu Phe Gln Arg His Gly Tyr Cys Thr
1 5 10 15

Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Ser Ala Ile Gln Asp
20 25 30

Ile Arg Thr Phe Asn Tyr Val Val Lys Leu Leu Gln Leu Ile Ala Lys
35 40 45

Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln Lys Asn Tyr Phe Asn
50 55 60

Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro
65 70 75 80

Arg Leu Leu Lys Asp Leu Leu Gln Asp Leu Ser Ser Thr Leu Cys Ile
85 90 95

Leu Thr Arg Gly Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Ile
100 105 110

Trp Thr Cys Arg Leu Glu Thr Ile Leu Ala Trp Gln Gln Gln Leu Gln
115 120 125

Asp Leu Gln Met Thr Lys Gln Val Asn Asn Gly Leu Thr Leu Ser Asp
130 135 140

Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr Arg Phe Ser Asp Gly
145 150 155 160

Trp Asp Ile Leu Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu
165 170 175

Ser Glu Asp Arg Gln Leu Trp Lys Lys Leu Cys Gln Tyr His Phe Ala
180 185 190

Glu Lys Gln Phe Cys Arg His Leu Leu Leu Ser Glu Lys Gly His Leu
195 200 205

Glu Trp Lys Leu Met Tyr Phe Ala Leu Gln Lys His Tyr Pro Ala Lys
210 215 220

Glu Gln Tyr Gly Asp Thr Leu His Phe Cys Arg His Cys Ser Ile Leu
225 230 235 240

Phe Trp Lys Asp Ser Gly His Pro Cys Thr Ala Ala Asp Pro Asp Ser
245 250 255

Cys Phe Thr Pro Val Ser Pro Gln His Glu Ile Asp Leu Phe Lys Phe
260 265 270

<210> 18

<211> 344

<212> PRT

<213> Homo sapiens

<400> 18

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Tyr
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Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
35 40 45

Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
50 55 60

Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Leu His Gln
65 70 75 80

Glu Lys Trp Thr Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
85 90 95

Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Glu Ser Thr Ala
100 105 110

Ile Leu Asp Ser Arg Arg Glu Asn Tyr Val Val Arg Leu Leu Glu Leu
115 120 125

Thr Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
130 135 140

Phe Met Asn Leu Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
145 150 155 160

Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
165 170 175

Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
180 185 190

Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
195 200 205

Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
210 215 220

Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
225 230 235 240

Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
245 250 255

His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
260 265 270

His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
275 280 285

Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
290 295 300

Pro Arg Arg Glu Gln Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys
305 310 315 320

His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
325 330 335

Pro Glu Ser Cys Ser Val Ser Leu
340

<210> 19

<211> 350

<212> PRT

<213> rat

<400> 19

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45

Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80

Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95

Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110

Arg Glu Asn Tyr Val Val Arg Leu Leu Glu Leu Thr Ala Lys Ser Gln
115 120 125

Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Leu Leu
130 135 140

Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160

Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175

Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Leu Asn Met Trp Val
180 185 190

Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
195 200 205

Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
210 215 220

Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225 230 235 240

Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
245 250 255

Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
260 265 270

Gln Ile Arg Lys Arg Leu Leu Leu Ser Asp Lys Gly Gln Leu Asp Trp
275 280 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
290 295 300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
325 330 335

Val Ser Leu Ser Pro Gln Asp Glu Ile Asn Leu Phe Lys Phe
340 345 350

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<211> 1053

<212> DNA

<213> rat

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cacaacctct gccggaagtg tgccaacgac atcttccagg ctgccaatcc ctactggacc 180

aaccgcggtg gctcggtgtc catgtctgga ggtcgtttcc gctgcccctc gtgccgccat 240

gaagtgatca tggaccggca tggggtgtac ggtctgcaga ggaacctgct ggtggagaac 300

atcatcgaca tctacaagca ggaatgctcc agtcggcccc tgcagaaagg cagccacccg 360

atgtgcaagg aacacgaaga cgagaaaatc aacatctact gtctcacgtg cgaggtgcct 420

acttgctcct tgtgcaaggt gttcggggct caccaggcct gtgaagttgc ccccttacaa 480

agcatcttcc aaggacagaa gactgaactg agcaattgca tctccatgct ggtggcaggg 540

aacgaccgag ttcagactat catctcgcag ctggaggact cctgccgagt gaccaaggaa 600

aacagccacc aggtgaagga ggaactgagc cacaagtttg acgccctcta cgccatcctg 660

gacgagaaga agagtgagct gctgcagcgg atcactcagg agcaggagga gaagctggac 720

ttcatcgagg ccctgatcct ccagtaccga gagcagttgg aaaagtcgac caagcttgtg 780

gaaacagcca tccagtccct ggatgagccc ggaggggcca ccttcctctt gagtgccaag 840

ccgctcatca agagcattgt agaagcttcc aagggctgcc agctggggaa gacagaacaa 900

ggctttgaga acatggacta ctttactctg aatttagaac acatagcaga ggccttgagg 960

gccatcgact ttgggacaga tgaggaggag gagtttactg aagaggagga ggaggaggat 1020

caagaagagg gcgtgtccac agagggacac caa 1053

<210> 21

<211> 351

<212> PRT

<213> rat

<400> 21

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Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190

Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205

Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225 230 235 240

Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
245 250 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270

Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
275 280 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
290 295 300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
305 310 315 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
325 330 335

Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
340 345 350

<210> 22

<211> 2097

<212> DNA

<213> Homo sapiens

<400> 22
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gtatctccca cctcttccca agcagcagca aagttaggct gacctcgtct gttatgtaaa 180

ggatgcgtag ggatgggagg gcgatgagga ctaggatgat ggcgggcagg atagttcaga 240

cggtttccat ttcctgagcg tctgagatgt tagtattagt tagttttgtt gtgagtgtta 300

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attccttccc acagaatgga ttataagtcg agcctgatcc aggatgggaa tcccatggag 480

aacttggaga agcagctgat ctgccctatc tgcctggaga tgtttaccaa gccagtggtc 540

atcttgccgt gccagcacaa cctgtgccgg aagtgtgcca atgacatctt ccaggctgca 600

aatccctact ggaccagccg gggcagctca gtgtccatgt ctggaggccg tttccgctgc 660

cccacctgcc gccacgaggt gatcatggat cgtcacggag tgtacggcct gcagaggaac 720

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gtggccccat tgcagagtgt cttccaggga caaaagactg aactgaataa ctgtatctcc 960

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cgagtgacca aggagaacag tcaccaggta aaggaagagc tgagccagaa gtttgacacg 1080

ttgtatgcca tcctggatga gaagaaaagt gagttgctgc agcggatcac gcaggagcag 1140

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gcagacgccc tgagagccat tgactttggg acagatgagg aagaggaaga attcattgaa 1440

gaagaagatc aggaagagga agagtccaca gaagggaagg aagaaggaca ccagtaagga 1500

gctggatgaa tgagaggccc ccagatgcag agagactgga gagggtgggg aggggcccag 1560

cggccttggt gacaggccca gggtgggagg ggtcggggcc cctggagggg caatggggag 1620

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atatgtatgc caatttggtg ctttttgtaa aggaactttt gtataataat gcctggtcgt 1860

tgggtgacct gcgattgtca gaaagagggg aaggaagcca ggttgataca gctgcccact 1920

tcctttcctg agcaggagga tggggtagca ctcacaggga cgatgtgctg tatttcagtg 1980

cctatcccag acatacgggg tggtaactga gtttgtgtta tatgttgttt taataaatgc 2040

acaatgctct cttcctgttc ttcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 2097

<210> 23

<211> 340

<212> PRT

<213> Homo sapiens

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Met Glu Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
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Phe Thr Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
20 25 30

Lys Cys Ala Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Ser
35 40 45

Arg Gly Ser Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Thr
50 55 60

Cys Arg His Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln
65 70 75 80

Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys
85 90 95

Ser Ser Arg Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His
100 105 110

Glu Asp Glu Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr
115 120 125

Cys Ser Met Cys Lys Val Phe Gly Ile His Lys Ala Cys Glu Val Ala
130 135 140

Pro Leu Gln Ser Val Phe Gln Gly Gln Lys Thr Glu Leu Asn Asn Cys
145 150 155 160

Ile Ser Met Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Thr
165 170 175

Gln Leu Glu Asp Ser Arg Arg Val Thr Lys Glu Asn Ser His Gln Val
180 185 190

Lys Glu Glu Leu Ser Gln Lys Phe Asp Thr Leu Tyr Ala Ile Leu Asp
195 200 205

Glu Lys Lys Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu
210 215 220

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Lys Leu Ser Phe Ile Glu Ala Leu Ile Gln Gln Tyr Gln Glu Gln Leu
225                 230                 235                 240

Asp Lys Ser Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu
                245                 250                 255

Pro Gly Gly Ala Thr Phe Leu Leu Thr Ala Lys Gln Leu Ile Lys Ser
            260                 265                 270

Ile Val Glu Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly
        275                 280                 285

Phe Glu Asn Met Asp Phe Phe Thr Leu Asp Leu Glu His Ile Ala Asp
    290                 295                 300

Ala Leu Arg Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Glu Phe
305                 310                 315                 320

Ile Glu Glu Glu Asp Gln Glu Glu Glu Glu Ser Thr Glu Gly Lys Glu
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Glu Gly His Gln
            340
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<210> 24

<211> 1050

<212> DNA

<213> rat

<400> 24

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aaagacatac agaacagcaa aaccaaaact cagtatttcc atcaggagaa gtggatctat    240

gttcacaaag ggagtactaa ggagcgccat ggatactgca ctttgggga agctttcaac     300

agactggact tctcgactgc catcctggat tccagaagat tcaactacgt agtaaggctg    360

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atacgggaac ttctccagac cctctacaca tccttatgca cgctggtcca gagagtcggc    540

aagtccgtgc tggtgggcaa catcaacatg tgggtgtatc gaatggagac cactctacac    600

tggcaacagc agctgaacag catccagatc agcaggccgg ccttcaaagg tctcacgatc    660

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ctggtcagcc tgggccaggc agccccagac ctgcatgtgc tcagtgaaga ccggctactg    780
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tctgacaaag ggcagctgga ttggaagaag atgtacttta agcttgtgcg atgttaccca 900

agaagagaac agtatggggt caccctgcag ctttgcaaac actgccacat tctctcctgg 960

aagggcactg accatccatg cacggccaac aacccagaga gctgctccgt ctcactttca 1020

ccccaagact ttattaactt gttcaagttc 1050

<210> 25

<211> 350

<212> PRT

<213> rat

<400> 25

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
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Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45

Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80

Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95

Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110

Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
115 120 125

Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
130 135 140

Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160

Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175

Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val
180 185 190

Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
195 200 205

Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
210 215 220

Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225 230 235 240

Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
245 250 255

Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
260 265 270

Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
275 280 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
290 295 300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
325 330 335

Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
340 345 350

<210> 26

<211> 1035

<212> DNA

<213> Homo sapiens

<400> 26
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tgcaacaagg aggtatacaa taaggagaat cttttcaaca gcctgaacta tgatgttgca 180

gccaagaaga gaaagaagga catgctgaat agcaaaacca aaactcagta tttccaccaa 240

gaaaaatgga tctatgttca caaaggaagt actaaagagc gccatggata ttgcaccctg 300

ggggaagctt tcaacagact ggacttctca actgccattc tggattccag aagatttaac 360

tacgtggtcc ggctgttgga gctgatagca aagtcacagc tcacatccct gagtggcatc 420

gcccaaaaga acttcatgaa tattttggaa aaagtggtac tgaaagtcct tgaagaccag 480

caaaacatta gactaataag ggaactactc cagaccctct acacatcctt atgtacactg 540

gtccaaagag tcggcaagtc tgtgctggtc gggaacatta acatgtgggt gtatcggatg 600

gagacgattc tccactggca gcagcagctg aacaacattc agatcaccag gcctgccttc 660

aaaggcctca ccttcactga cctgcctttg tgcctacaac tgaacatcat gcagaggctg 720

agcgacgggc gggacctggt cagcctgggc caggctgccc ccgacctgca cgtgctcagc 780

gaagaccggc tgctgtggaa gaaactctgc cagtaccact tctccgagcg gcagatccgc 840

aaacgattaa ttctgtcaga caaagggcag ctggattgga agaagatgta tttcaaactt 900

gtccgatgtt acccaaggaa agagcagtat ggagataccc ttcagctctg caaacactgt 960

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tccgtttcac tttga 1035

<210> 27

<211> 344

<212> PRT

<213> Homo sapiens

<400> 27

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
35 40 45

Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
50 55 60

Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
65 70 75 80

Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
85 90 95

Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
100 105 110

Ile Leu Asp Ser Arg Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu
115 120 125

Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
130 135 140

Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
145 150 155 160

Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
165 170 175

Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
180 185 190

Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
195 200 205

Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
210 215 220

Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
225 230 235 240

Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
245 250 255

His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
260 265 270

His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
275 280 285

Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
290 295 300

Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys
305 310 315 320

His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
325 330 335

Pro Glu Ser Cys Ser Val Ser Leu
340

<210> 28

<211> 64

<212> PRT

<213> Homo sapiens

<400> 28

Cys Pro Ile Cys Leu Glu Met Phe Ser Lys Pro Val Val Ile Leu Pro
1 5 10 15

Cys Gln His Asn Leu Cys Arg Lys Cys Ala Asn Asp Val Phe Gln Ala
20 25 30

Ser Asn Pro Leu Trp Gln Ser Arg Gly Ser Thr Thr Val Ser Ser Gly
35 40 45

Gly Arg Phe Arg Cys Pro Ser Cys Arg His Glu Val Val Ile Asp Arg
50 55 60

<210> 29

<211> 57

<212> PRT

<213> Homo sapiens

<400> 29

Cys Pro Ile Cys Leu Glu Leu Leu Glu Asp Pro Leu Leu Leu Pro Cys
1 5 10 15

Ala His Ser Leu Cys Phe Ser Cys Ala His Arg Ile Leu Val Ser Ser
20 25 30

Cys Ser Ser Gly Glu Ser Ile Glu Pro Ile Thr Ala Phe Gln Cys Pro
35 40 45

Thr Cys Arg Tyr Val Ile Ser Leu Asn
50 55

<210> 30

<211> 57

<212> PRT

<213> Homo sapiens

<400> 30

Cys Pro Ile Cys Cys Ser Leu Phe Asp Asp Pro Arg Val Leu Pro Cys
1 5 10 15

Ser His Asn Phe Cys Lys Lys Cys Leu Glu Gly Ile Leu Glu Gly Ser
20 25 30

Val Arg Asn Ser Leu Trp Arg Pro Ala Pro Phe Lys Cys Pro Thr Cys
35 40 45

Arg Lys Glu Thr Ser Ala Thr Gly Ile
50 55

<210> 31

<211> 57

<212> PRT

<213> Homo sapiens

<400> 31

Cys Pro Ile Cys Leu Glu Leu Phe Glu Asp Pro Leu Leu Leu Pro Cys
1 5 10 15

Ala His Ser Leu Cys Phe Ser Cys Ala His Arg Ile Leu Val Ser Ser
20 25 30

Cys Ser Ser Gly Glu Ser Leu Glu Pro Ile Thr Ala Phe Gln Cys Pro
35 40 45

Thr Cys Arg Tyr Val Ile Ser Leu Asn
50 55

<210> 32

<211> 630

<212> DNA

<213> rat

<400> 32

atggactaca aagacgatga cgacaaagat tataaatctg gcttgattcc ggacggaaat 60

gctatggaga acctggagaa gcagctcatc tgccccatct gccttgagat gtttaccaag 120

cctgtggtca tcctgccctg ccagcacaac ctctgccgga agtgtgccaa cgacatcttc 180

caggctgcca atccctactg gaccaaccgc ggtggctcgg tgtccatgtc tggaggtcgt 240

ttccgctgcc cctcgtgccg ccatgaagtg atcatggacc ggcatggggt gtacggtctg 300

cagaggaacc tgctggtgga gaacatcatc gacatctaca agcaggaatg ctccagtcgg 360

cccctgcaga aaggcagcca cccgatgtgc aaggaacacg aagacgagaa aatcaacatc 420

tactgtctca cgtgcgaggt gcctacttgc tccttgtgca aggtgttcgg ggctcaccag 480

gcctgtgaag ttgccccctt acaaagcatc ttccaaggac agaagactga actgagcaat 540

tgcatctcca tgctggtggc agggaacgac cgagttcaga ctatcatctc gcagctggag 600

gactcctgcc gagtgaccaa ggtgagggtg 630

<210> 33

<211> 202

<212> PRT

<213> rat

<400> 33

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190

Asp Ser Cys Arg Val Thr Lys Val Arg Val
195 200

<210> 34

<211> 1065

<212> DNA

<213> Homo sapiens

<400> 34
atgccattcc tcgggcagga ctggcggtcc cccgggcaga actgggtgaa gacggccgac 60

ggctggaagc gcttcctgga tgagaagagc ggcagtttcg tgagcgacct cagcagttac 120

tgcaacaagg aggtatacaa taaggagaat cttttcaaca gcctgaacta tgatgttgca 180

gccaagaaga gaaagaagga catgctgaat agcaaaacca aaactcagta tttccaccaa 240

gaaaaatgga tctatgttca caaaggaagt actaaagagc gccatggata ttgcaccctg 300

ggggaagctt tcaacagact ggacttctca actgccattc tggattccag aagatttaac 360

tacgtggtcc ggctgttgga gctgatagca aagtcacagc tcacatccct gagtggcatc 420

gcccaaaaga acttcatgaa tattttggaa aaagtggtac tgaaagtcct tgaagaccag 480

caaaacatta gactaataag ggaactactc cagaccctct acacatcctt atgtacactg 540

gtccaaagag tcggcaagtc tgtgctggtc gggaacatta acatgtgggt gtatcggatg 600

gagacgattc tccactggca gcagcagctg aacaacattc agatcaccag gcctgccttc 660

aaaggcctca ccttcactga cctgcctttg tgcctacaac tgaacatcat gcagaggctg 720

agcgacgggc gggacctggt cagcctgggc caggctgccc ccgacctgca cgtgctcagc 780

gaagaccggc tgctgtggaa gaaactctgc cagtaccact tctccgagcg gcagatccgc 840

aaacgattaa ttctgtcaga caaagggcag ctggattgga agaagatgta tttcaaactt 900

gtccgatgtt acccaaggaa agagcagtat ggagataccc ttcagctctg caaacactgt 960

cacatccttt cctggaaggg cactgaccat ccgtgcactg ccaataaccc agagagctgc 1020

tccgtttcac tttcacccca ggactttatc aacttgttca agttc 1065

<210> 35

<211> 355

<212> PRT

<213> Homo sapiens

<400> 35

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
35 40 45

Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
50 55 60

Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
65 70 75 80

Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
85 90 95

Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
100 105 110

Ile Leu Asp Ser Arg Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu
115 120 125

Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
130 135 140

Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
145 150 155 160

Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
165 170 175

Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
180 185 190

Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
195 200 205

Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
210 215 220

Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
225 230 235 240

Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
245 250 255

His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
260 265 270

His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
275 280 285

Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
290 295 300

Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys
305 310 315 320

His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
325 330 335

Pro Glu Ser Cys Ser Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu
340 345 350

Phe Lys Phe
355

<210> 36

<211> 351

<212> PRT

<213> rat

<400> 36

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190

Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205

Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225 230 235 240

Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
245 250 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270

Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
275 280 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
290 295 300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
305 310 315 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
325 330 335

Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
340 345 350

<210> 37

<211> 396

<212> PRT

<213> Homo sapiens

<400> 37

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Met Asn Phe Thr Val Gly Phe Lys Pro Leu Leu Gly Asp Ala His Ser
1               5                  10                  15

Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
            20                  25                  30

Phe Ser Lys Pro Val Val Leu Leu Pro Cys Gln His Asn Leu Cys Arg
        35                  40                  45

Lys Cys Ala Asn Asp Val Phe Gln Ala Ser Asn Pro Leu Trp Gln Ser
    50                  55                  60

Arg Gly Ser Thr Thr Val Ser Ser Gly Gly Arg Phe Arg Cys Pro Ser
65                  70                  75                  80

Cys Arg His Glu Val Val Leu Asp Arg His Gly Val Tyr Gly Leu Gln
                85                  90                  95

Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Ser
            100                 105                 110

Ser Arg Pro Leu His Ser Lys Ala Glu Gln His Leu Met Cys Glu Glu
        115                 120                 125

His Glu Glu Glu Lys Ile Asn Ile Tyr Cys Leu Ser Cys Glu Val Pro
    130                 135                 140

Thr Cys Ser Leu Cys Lys Val Phe Gly Ala His Lys Asp Cys Glu Val
145                 150                 155                 160

Ala Pro Leu Pro Thr Ile Tyr Lys Arg Gln Lys Lys Gln Asp Leu Thr
                165                 170                 175

Leu Leu Pro Arg Leu Glu Cys Ser Gly Thr Asn Thr Thr Tyr Cys Ser
            180                 185                 190

Leu Asp Leu Pro Ser Ser Ser Asp Pro Pro Ile Leu Ala Ser Gln Asn
        195                 200                 205

Thr Lys Ile Ile Asp Ser Glu Leu Ser Asp Gly Ile Ala Met Leu Val
    210                 215                 220

Ala Gly Asn Asp Arg Val Gln Ala Val Ile Thr Gln Met Glu Glu Val
225                 230                 235                 240

Cys Gln Thr Ile Glu Asp Asn Ser Arg Arg Gln Lys Gln Leu Leu Thr
                245                 250                 255

Gln Arg Phe Glu Ser Leu Cys Ala Val Leu Glu Glu Arg Lys Gly Glu
            260                 265                 270

Leu Leu Gln Ala Leu Ala Arg Glu Gln Glu Glu Lys Leu Gln Arg Val
        275                 280                 285
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Arg Gly Leu Ile Arg Gln Tyr Gly Asp His Leu Glu Ala Ser Ser Lys
290 295 300

Leu Val Glu Ser Ala Ile Gln Ser Met Glu Glu Pro Gln Met Ala Leu
305 310 315 320

Tyr Leu Gln Gln Ala Lys Glu Leu Ile Asn Lys Val Gly Ala Met Ser
325 330 335

Lys Val Glu Leu Ala Gly Arg Pro Glu Pro Gly Tyr Glu Ser Met Glu
340 345 350

Gln Phe Thr Val Arg Val Glu His Val Ala Glu Met Leu Arg Thr Ile
355 360 365

Asp Phe Gln Pro Gly Ala Ser Gly Glu Glu Glu Val Ala Pro Asp Gly
370 375 380

Glu Glu Gly Ser Ala Gly Pro Glu Glu Glu Arg Pro
385 390 395

<210> 38

<211> 867

<212> DNA

<213> Homo sapiens

<400> 38
atgaacttca cagtgggttt caagccgctg ctaggggatg cacacagcat ggacaacctg 60

gagaagcagc tcatctgccc catctgcctg gagatgttct ccaaaccagt ggtgatcctg 120

ccctgccaac acaacctgtg ccgcaaatgt gccaacgacg tcttccaggc ctcgaatcct 180

ctatggcagt cccggggctc caccactgtg tcttcaggag gccgtttccg ctgcccatcg 240

tgcaggcatg aggttgtcct ggacagacac ggtgtctacg gcctgcagcg aaacctgcta 300

gtggagaaca ttatcgacat ttacaagcag gagtcatcca ggccgctgca ctccaaggct 360

gagcagcacc tcatgtgcga ggagcatgaa gaagagaaga tcaatattta ctgcctgagc 420

tgtgaggtgc ccacctgctc tctctgcaag gtcttcggtg cccacaagga ctgtgaggtg 480

gccccactgc ccaccattta caaacgccag aagagtgagc tcagcgatgg catcgcgatg 540

ctggtggcag gcaatgaccg cgtgcaagca gtgatcacac agatggagga ggtgtgccag 600

actatcgagg acaatagccg gaggcagaag cagttgttaa accagaggtt tgagagcctg 660

tgcgcagtgc tggaggagcg caagggtgag ctgctgcagg cgctggcccg ggagcaagag 720

gagaagctgc agcgcgtccg cggcctcatc cgtcagtatg gcgaccacct ggaggcctcc 780

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cagcaggcca aggagctgat caataag 867

<210> 39

<211> 289

<212> PRT

<213> Homo sapiens

<400> 39

Met Asn Phe Thr Val Gly Phe Lys Pro Leu Leu Gly Asp Ala His Ser
1 5 10 15

Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
20 25 30

Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
35 40 45

Lys Cys Ala Asn Asp Val Phe Gln Ala Ser Asn Pro Leu Trp Gln Ser
50 55 60

Arg Gly Ser Thr Thr Val Ser Ser Gly Gly Arg Phe Arg Cys Pro Ser
65 70 75 80

Cys Arg His Glu Val Val Leu Asp Arg His Gly Val Tyr Gly Leu Gln
85 90 95

Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Ser
100 105 110

Ser Arg Pro Leu His Ser Lys Ala Glu Gln His Leu Met Cys Glu Glu
115 120 125

His Glu Glu Glu Lys Ile Asn Ile Tyr Cys Leu Ser Cys Glu Val Pro
130 135 140

Thr Cys Ser Leu Cys Lys Val Phe Gly Ala His Lys Asp Cys Glu Val
145 150 155 160

Ala Pro Leu Pro Thr Ile Tyr Lys Arg Gln Lys Ser Glu Leu Ser Asp
165 170 175

Gly Ile Ala Met Leu Val Ala Gly Asn Asp Arg Val Gln Ala Val Ile
180 185 190

Thr Gln Met Glu Glu Val Cys Gln Thr Ile Glu Asp Asn Ser Arg Arg
195 200 205

Gln Lys Gln Leu Leu Asn Gln Arg Phe Glu Ser Leu Cys Ala Val Leu
210 215 220

Glu Glu Arg Lys Gly Glu Leu Leu Gln Ala Leu Ala Arg Glu Gln Glu
225 230 235 240

Glu Lys Leu Gln Arg Val Arg Gly Leu Ile Arg Gln Tyr Gly Asp His
245 250 255

Leu Glu Ala Ser Ser Lys Leu Val Glu Ser Ala Ile Gln Ser Met Glu
260 265 270

Glu Pro Gln Met Ala Leu Tyr Leu Gln Gln Ala Lys Glu Leu Ile Asn
275 280 285

Lys

<210> 40

<211> 350

<212> PRT

<213> rat

<400> 40

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45

Ser Leu Asn Tyr Asp Tyr Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80

Val Lys Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95

Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110

Arg Thr Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
115 120 125

Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
130 135 140

Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160

Thr Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175

Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Thr Asn Met Trp Val
180 185 190

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Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
        195                 200                 205

Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
    210                 215                 220

Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225                 230                 235                 240

Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
                245                 250                 255

Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
            260                 265                 270

Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
        275                 280                 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
    290                 295                 300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
305                 310                 315                 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
                325                 330                 335

Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
            340                 345                 350
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<210> 41

<211> 355

<212> PRT

<213> Homo sapiens

<400> 41

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Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
1               5                   10                  15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
            20                  25                  30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
        35                  40                  45

Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Tyr Ala Ala Lys Lys Arg
    50                  55                  60

Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
65                  70                  75                  80

Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
                85                  90                  95
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Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
100 105 110

Ile Leu Asp Ser Arg Arg Thr Asn Tyr Val Val Arg Leu Leu Glu Leu
115 120 125

Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
130 135 140

Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
145 150 155 160

Gln Asn Ile Arg Leu Thr Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
165 170 175

Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
180 185 190

Thr Asn Met Trp Val Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln
195 200 205

Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
210 215 220

Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
225 230 235 240

Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
245 250 255

His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
260 265 270

His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
275 280 285

Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
290 295 300

Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys
305 310 315 320

His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
325 330 335

Pro Glu Ser Cys Ser Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu
340 345 350

Phe Lys Phe
355

<210> 42

<211> 271

<212> PRT

<213> Homo sapiens

<400> 42

Leu Ile Leu Thr Ser Val Leu Leu Phe Gln Arg His Gly Tyr Cys Thr
1 5 10 15

Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Ser Ala Ile Gln Asp
20 25 30

Ile Arg Thr Glu Asn Tyr Val Val Lys Leu Leu Gln Leu Ile Ala Lys
35 40 45

Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln Lys Asn Tyr Phe Asn
50 55 60

Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro
65 70 75 80

Arg Leu Thr Lys Asp Leu Leu Gln Asp Leu Ser Ser Thr Leu Cys Ile
85 90 95

Leu Ile Arg Gly Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Ile
100 105 110

Trp Ile Cys Arg Leu Glu Thr Ile Leu Ala Trp Gln Gln Gln Leu Gln
115 120 125

Asp Leu Gln Met Thr Lys Gln Val Asn Asn Gly Leu Thr Leu Ser Asp
130 135 140

Leu Pro Leu His Met Leu Asn Ile Leu Tyr Arg Phe Ser Asp Gly Trp
145 150 155 160

Asp Ile Ile Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu Ser
165 170 175

Glu Asp Arg Gln Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ala Glu
180 185 190

Lys Gln Phe Cys Arg His Leu Ile Leu Ser Glu Lys Gly His Ile Glu
195 200 205

Trp Lys Leu Met Tyr Phe Ala Leu Gln Lys His Tyr Pro Ala Lys Glu
210 215 220

Gln Tyr Gly Asp Thr Leu His Phe Cys Arg His Cys Ser Thr Leu Phe
225 230 235 240

Trp Lys Asp Ser Gly His Pro Cys Thr Ala Ala Asp Pro Asp Ser Cys
245 250 255

Phe Thr Pro Val Ser Pro Gln His Phe Ile Asp Leu Phe Lys Phe
260 265 270

<210> 43

<211> 350

<212> PRT

<213> rat

<400> 43

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Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1               5                  10                  15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
            20                  25                  30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
        35                  40                  45

Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
    50                  55                  60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65                  70                  75                  80

Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
                85                  90                  95

Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
            100                 105                 110

Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
        115                 120                 125

Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
    130                 135                 140

Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145                 150                 155                 160

Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
                165                 170                 175

Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val
            180                 185                 190

Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
        195                 200                 205

Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
    210                 215                 220

Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225                 230                 235                 240

Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
                245                 250                 255

Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
            260                 265                 270

Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
        275                 280                 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
    290                 295                 300
```

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
325 330 335

Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
340 345 350

<210> 44

<211> 350

<212> PRT

<213> rat

<400> 44

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Leu
20 25 30

Leu Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45

Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80

Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95

Glu Ala Leu Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110

Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
115 120 125

Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
130 135 140

Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160

Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175

Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val
180 185 190

Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
195 200 205

Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
210 215 220

Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225 230 235 240

Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
245 250 255

Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
260 265 270

Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
275 280 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
290 295 300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
325 330 335

Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
340 345 350

<210> 45

<211> 351

<212> PRT

<213> rat

<400> 45

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

```
Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
        115                 120                 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
    130                 135                 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145                 150                 155                 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
                165                 170                 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
            180                 185                 190

Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
        195                 200                 205

Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
    210                 215                 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225                 230                 235                 240

Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
                245                 250                 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
            260                 265                 270

Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
        275                 280                 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
    290                 295                 300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
305                 310                 315                 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
                325                 330                 335

Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
            340                 345                 350
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<210> 46

<211> 351

<212> PRT

<213> rat

<400> 46

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Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1               5                   10                  15
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Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
            20                  25                  30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
        35                  40                  45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
    50                  55                  60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65                  70                  75                  80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
                85                  90                  95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
            100                 105                 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
        115                 120                 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
    130                 135                 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145                 150                 155                 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
                165                 170                 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
            180                 185                 190

Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
        195                 200                 205

Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
    210                 215                 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225                 230                 235                 240

Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
                245                 250                 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
            260                 265                 270

Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
        275                 280                 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
    290                 295                 300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
305                 310                 315                 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
                325                 330                 335
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Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
340 345 350

<210> 47

<211> 351

<212> PRT

<213> rat

<400> 47

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140

Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160

Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190

Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205

Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225 230 235 240

Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
245 250 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270

Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
275 280 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
290 295 300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
305 310 315 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
325 330 335

Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
340 345 350

<210> 48

<211> 353

<212> PRT

<213> Homo sapiens

<400> 48

Met Asp Tyr Lys Ser Ser Leu Ile Gln Asp Gly Asn Pro Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30

Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45

Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Ser Arg Gly Ser
50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Thr Cys Arg His
65 70 75 80

Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95

Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110

Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125

Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Met
130 135 140

Cys Lys Val Phe Gly Ile His Lys Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160

Ser Val Phe Gln Gly Gln Lys Thr Glu Leu Asn Asn Cys Ile Ser Met
165 170 175

Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Tyr Thr Gln Leu Glu
180 185 190

Asp Ser Arg Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205

Leu Ser Gln Lys Phe Asp Thr Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220

Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Ser
225 230 235 240

Phe Ile Glu Ala Leu Ile Gln Gln Tyr Gln Glu Gln Leu Asp Lys Ser
245 250 255

Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270

Ala Thr Phe Leu Leu Thr Ala Lys Gln Leu Ile Lys Ser Ile Val Glu
275 280 285

Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
290 295 300

Met Asp Phe Phe Thr Leu Asp Leu Glu His Ile Ala Asp Ala Leu Arg
305 310 315 320

Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Glu Phe Ile Glu Glu
325 330 335

Glu Asp Gln Glu Glu Glu Glu Ser Thr Glu Gly Lys Glu Glu Gly His
340 345 350

Gln